



BY PETER BISHOP

Treasure chest

People are always collecting things, from the mundane to the exotic. In Victorian times, tastes ranged from butterflies to birds' eggs, both now happily off-limits. Today a collection might feature buttons, badges, coins, medals, spoons, thimbles...whatever. This little cabinet is the perfect home for whatever you hoard

Ash is an interesting and very much undervalued wood. To look at it in the raw, rough-sawn state you could mistake it for a coarse, wild-grained wood. However, once planed and finished it has a smooth and almost silky feel to it.

My choice for this little chest of drawers was to go for so-called olive ash. Unlike clear white ash, which commands a higher price, olive ash features random darkening of the grain along the length of the board, making it resemble true olive wood; hence the name. It's the result of mineral absorption by the tree during the growth period. In my experience, the colour of these streaks varies from a light silvery through to a deeper pinkish brown. I thought it would be ideal to pick up the red of the cherry wood I intended to use for the knobs and feet of this project.

Tailored to taste

Although I've called this piece a collector's chest, the project can easily be adapted for

use as, say, a jewellery cabinet. It can also be reduced or increased in size to suit your own personal requirements. Don't forget to take a look at what you'll be putting in it before you start. Lay the items out to estimate the drawer size you'll need. From this you can then work out how big the carcass will need to be.

Selecting materials

The chest is quite deep from front to back; therefore the top, base and two sides will have to be jointed from more than one piece. Cut the components roughly to size and store them in a warm environment for a week or so (and longer if you can), to help bring them into equilibrium with their eventual location.

Once they're ready, simply plane one face and square one or two edges to create the joints. Now's the time to step back and take a look at what you've got. Any pieces with slight defects need to go into the base



1 Rub the glue into the joint of the main carcass boards to create a good bond between them



2 Three clamps will be sufficient to keep these short boards square and flat



3 Leave the glued boards to set overnight, then surface-plane each one.



board; it won't show much when the piece is finished. Select the grain for colour and configuration to ensure that the side pieces will look similar, and that the top displays the best features. Don't forget to alternate the growth ring directions as you select the pieces, this will help to keep the finished boards flat and stable.

Glued and rubbed

Once all that's sorted out, set your cramps up ready and mix up some glue. At this stage I'd recommend an adhesive that provides a good strong joint; something like Cascamite will do the job perfectly. PVA glue is all right, but I'd save that for the smaller, lighter joints later on.

Apply the glue liberally to both surfaces you're joining. Put one piece in a vice and rub the other along it, **photo 1**, working it back and forth to remove any excess glue and to create the good key for the joint. Once the joint is well rubbed, pop it into the cramps, **photo 2**, tighten them up and leave to cure overnight. Later, these roughly



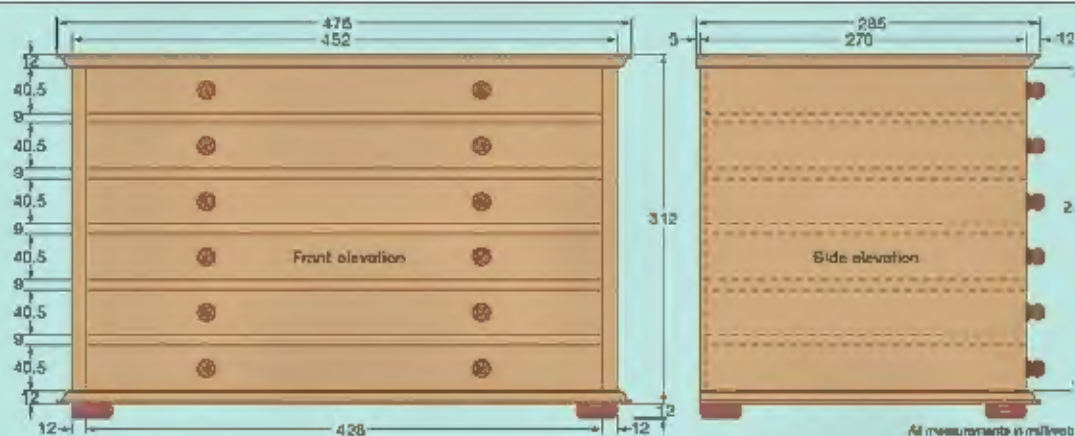
4 ...and then thickness it to its finished size. Note the use of a push stick here



5 Stack the boards on edge to stop them picking up moisture and warping



6 Use a router or crosscut saw to cut the trenches in the top and base pieces

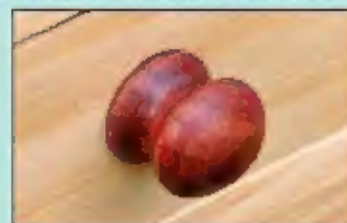


COLLECTOR'S CHEST CUTTING LIST

All dimensions are in millimetres

Part	Qty	L	W	T
CARCASE				
Top/base	2	500	285	12
Side	2	325	270	12
Back (mdf)	1	500	300	4
Drawer divider (mdf)	5	450	265	9
Bin foot	4	25 dia		12
DRAWERS				
Front	6	450	38.5	12
Side	12	300	39.5	9
Back	6	450	28	9
Base (mdf)	6	450	260	4
Knob	12	15 dia		90

You will also need some thin straight-grained wood for the drawer dividers, some ash offcuts to edge the five drawer dividers, and some self-adhesive baize to line the bases of the drawers before the loose inserts are fitted.



jointed pieces can be surface-planed, **photo 3**, and then thickened to their finished size, **photo 4**.

To stop the finished boards from picking up moisture on one face and warping before you have a chance to use them, stack them on edge in a notched batten, **photo 5**. It's an old trick, but it works a treat!

Box joints

The next stage is effectively making up a four-sided box, **fig 1**. The underside of the top and the upper side of the base will be stop-trenched to take the two sides. Allow for a small (say 3mm) overhang at the back edge of the top so that when the chest is placed on something it can butt right up to the back edge of the surface. There is also

an overhang to the two sides and the front of about 12mm.

Cut the depth of the trenches to half the thickness of the top and base pieces. Stop them about 10mm or 12mm from their ends, not forgetting to allow for the overhang to the front. Set up your router or crosscut saw to create the trenches, **photo 6**, and square out the front ends with a sharp chisel, **photo 7**. The sides can then be cut to length and notched to fit over the ends of each trench.

Five divisions

The drawer divider sections for the carcase need to be made up next. I used 9mm mdf for these, with a solid wood strip attached to the front edge. The strips that are to be

planted on the edge of the mdf can be any width, **photo 8**, but around 25mm is ideal. They need to be planed to the exact thickness of the mdf. Square one edge of the mdf, apply adhesive (PVA's fine here), rub the strip on and then clamp it, **photo 9**. Before the final tightening up, make sure the faces are all flush.

Once the glue has gone off, sand away the excess, **photo 10**, and finish each divider to its final size, **photo 11**. Allow 4mm off the width for fitting the back.

Now you can mark out the positions of the trenches to take the dividers on the inside of each side piece, **photo 12**. Once these are cut out, **photo 13**, notch out the front corners of the dividers on the bandsaw, **photo 14**, ready for assembly.



7 Clean out and square off by the ends of the benches with a sharp chisel



8 A piece of mdf with a solid wood edge glued in forms each drawer divider



9 The edge pieces are glued and cramped on. They will be cut down to size later



10 Once the glue has dried, clean off the squeeze-out with a belt sander



11 The five drawer dividers with their glued-on edges are shown ready for finishing



12 Mark the positions of the benches for the dividers on the two side pieces



13 Cut the five trenches in the side pieces with a crosscut saw or a miter



14 Notch the front corners of the dividers so their edges fit into the trenches



15 Use a straight cutter in the router to form a shallow rebate for the back panel

A dry run

It's nearly time to glue up the carcass. First cut a rebate in the back edge of the top, base and sides to accommodate the back panel, **photo 15**. I used 4mm mdf for this, and cut the rebate 6mm wide and 4mm deep with a straight cutter set in my router. Stop before running out at each end of the top and base pieces and square up the ends to match the sides. Then change the cutter in your router and apply a moulding to the three exposed edges of the top and base panels, ready for assembly, **photo 16**.

Have a dry run now, when all the components are made, just to make sure everything fits together snugly. It will also give you an idea of the best assembly sequence to follow.

Assembly time

Having cleaned up all the pieces and planned your approach, get started with the gluing. The dummy run should have identified the best way to approach the assembly process. I started with the side panels and the five dividers, **photo 17**, then added the top and bottom panels, **photo 18**. Work quickly and efficiently through the sequence, checking that the completed carcass is square before leaving it to set. Note how I've set the carcass on a stout board so it's easier to fit the cramps.

The following day, release the cramps and clean off the excess glue. Clean up any final areas that need it, and cut the mdf back panel to fit. This can be simply glued and pinned in place, **photo 19**.

Simple joints

The drawers aren't very deep, so don't make them from stuff that's too thick or they will look out of proportion. I chose to lap-joint and glue the fronts, and to trench the backs into the sides. By all means use lapped and through dovetails in the traditional way if you prefer... and have the time to spare to cut them all!

The fronts, sides and backs need to be square-planed first. The sides and fronts are grooved to take the 4mm thick mdf bases, **photo 20**. The back is narrower than the sides so the drawer base will slide in past it once the drawer is assembled. Then drill out the knob sockets in each of the drawer fronts, using a backing piece to avoid breakout.



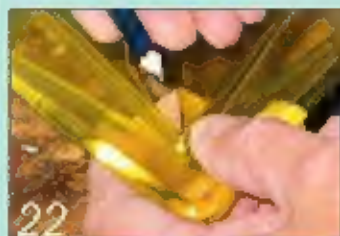
16 Change pattern and form decorative edge mouldings on the top and base pieces



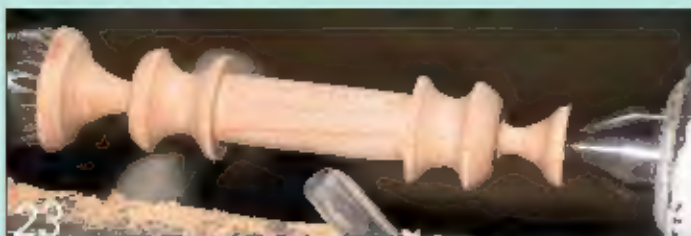
17 Start the assembly with a generous squirt of PVA glue in the slide piece trenches



18 Fit the dividers, add the top and bottom and clamp everything up square



22 Cut blanks for the knobs and feet, then locate their centres with a centre finder



23 I turned the knobs in pairs, leaving a generous shaft in the centre of the blank...

Little boxes

Having prepared all the drawer components, I cleaned them up with my sander. As the assembled drawers were so shallow, I used a couple of frame clamp sets to hold them together two at a time while the glue set, photo 21. Later I cut

Amish milk-pails for their bases and slid these into place. Although I found the traditional method, I also glued each base into its grooves and to the drawer back. I then trimmed and numbered each drawer to fit into the carcass in the right order, and set them all aside ready for sealing.

Acrylic aside

I like to use acrylic lacquer to finish lighter woods, because it tends to retain the original colours well. If I'm using a darker wood, then a polyurethane sealer gives better protection and looks good when cut back, waxed and polished. The satin finish acrylic lacquer I used for this project recommends a three-coat application, sanding and wiping off the residual nibs and dust between the second and third coats. If you do this well and take care with the final coat, then the finish should be perfectly smooth and flat.

Time for turning

I cut squares for the cherry knobs and bun feet out of some offcuts. I then used a centre finder to mark the centre of each blank

accurately, photo 22, before mounting it between centres on the lathe. I turned the knobs in pairs, photo 23, with a generous shaft in between. Once most of the shaping and finishing was done, I took them off the lathe and cut through the middle of this shaft. I then mounted a chuck in the lathe and each knob was finished in this.

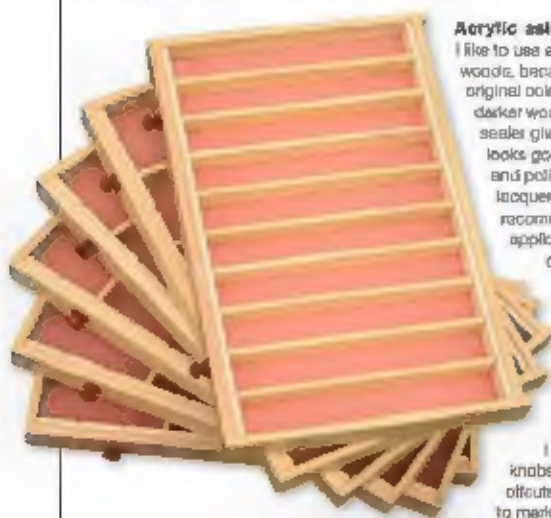
Next I turned the buns in one length with spaces in between, photo 24. To enhance their cherry red looks, I applied a little spirit stain to them. Later I sealed them, returned them to the lathe, cut them back and then sealed them again, photo 25.

With knobs on

I trimmed the knobs' shafts to length to fit through the holes I'd drilled earlier in the fronts of each drawer, photo 26, and made a couple of fine saw cuts in the end of each shaft to take tiny wedges. Insert each pair of knobs with glue in the sockets. Then tap in the wedges to hold them in place, photo 27. Finally, remove the bun feet from their turning stalk, centre-drill them and screw one in place to each corner of the base.

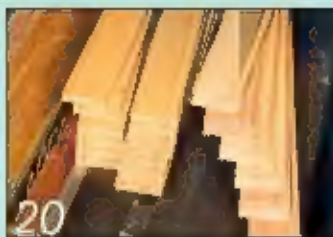
Silver lining

Early on I'd decided that the base of each drawer would be lined with beads or thin felt. Hunting around on the Internet, I came across a supplier of thin self-adhesive felt in





19 Cut the mdf back panel to size, and glue and pin it into place in its rebate.



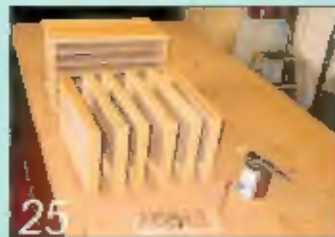
20 The drawer fronts and sides will be lap-jointed. The grooves will accept the mdf base panels.



21 I used a couple of frame clamp sets to hold the drawer boxes together.



24 Just tackled the four bun feet in one length so I could check their thickness.



25 I now had six drawers, 12 knobs and four bun feet ready for fitting.

a variety of colours; this seemed ideal. I chose a light pinkish-red colour to go with the cherry and the natural streaks in the ash. It was a straightforward job to cut it to size, photo 28, and to line each drawer.

I used some of the offcuts on the underside of the bun feet, photo 29, cutting out little discs and sticking them on. They conceal the screws and will protect any polished surface the chest might be set on.

Loose Inserts

I planned to fit loose dividers in each drawer, held in place by a grooved strip sitting at the front and back of the drawer. The dividers have V-shaped ends, and can be lifted out if required to create wider compartments. You can see from the finished photos that I've arranged the various drawers with three, four, five or ten compartments.

The width of the planned-up material for these inserts was finished slightly narrower than the inside depth of each drawer. I cut 12 pieces – two for each drawer – about 50mm longer than the internal drawer width. I then marked one out into ten equal segments, ready for grooving.

A simple jig

Fortunately I had a router jig made up for this task from a previous project. If you have



CHANGE OF COLOUR

You could have a bit of fun by making two strikingly different colours at the same time. The dark one shown below is made from turned and stained oak with oiled walnut feet and knobs, and with drawers lined in blue baize.

The turning process involves the use of ammonia in a sealed polythene turning chamber. Do take care when using this stuff, as it can be quite noxious if you get it whiff! Place your project in the chamber, pour some ammonia solution into saucers or other shallow containers around it, and close the chamber. The ammonia fumes given off then react with the tannin acid naturally occurring within the oak. The longer you leave the wood, the darker it gets. Finish by applying a stain as well, just to take the dullness off the ammonia effect; then seal and wax the wood to a lustre finish. And when you're done, just for fun, you can even mix and match the drawers between the oak and ash units.



1

The turned oak chest with its oiled walnut knobs looks every inch a genuine antique.



2

I lined the oak drawers with blue baize for contrast before filling the loose inserts.



3

Filling three of the drawers from my oak chest created an intriguing colour contrast.



26 Check that the drilled hole is clear of swarf, and make two fine cuts in the shaft of each knob.



27 Glue each knob in place and drive two dry wedges into the saw cuts to lock it in place.



28 Measure twice and cut once if you don't want to waste the baize lining!



29 Cut four small circles from the baize offcuts and stick them on the underside of the bun feet.



This simple jig makes light work of routing the grooves in the drawer inserts, ensuring that you end up with matched pairs of components.

To make one, take a look at photo 30. You'll need a baseboard, some side battens on top of this, deeper than the material you're working on, and two sliding sections at right angles to this to take the router base. Fit your router cutter and extend it so it cuts into the bottom board. Make a cut right across this board, and you'll then have an exact centre point for each of the V-grooves.

Feeling groovy

I clamped and wedged all 12 of my pieces in place edge to edge, and ran the router across the jig to cut the V about halfway through their thickness. Then I took them out of the jig, turned them round and did the same on the other end, repeating the process until all the grooves were cut. This

way you'll end up with matched pairs.

Once I'd cut all the grooves, I trimmed these pieces to fit each drawer and marked them 'front' and 'back' on their bottom edges. I then cut all the loose pieces that would form the spacers to length and created a V-shape on each end. If you're using soft stuff you can do this by hand, or by setting a powered saw at 45°. Once I'd made enough of these, I fitted them into each drawer to finish them off.

Finally, I put back the previously soaked drawer runners with fine steel wool and waxed them. This reduces friction and allows the drawers to slide in and out smoothly. All that was left now was to fill up the chest with my chosen treasures and to put it on display!